

ABHAY VENKATESH

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OVERVIEW

- Abhay Venkatesh is a *Tech Lead* at Anduril Industries, where he focuses on Autonomy Infrastructure, Simulation Infrastructure, Command-And-Control, and Lattice
- Abhay is mentored by **Jared Newman**, *Head of Platform* at Anduril, and **Nabil Enayet**, *Group Lead for Platform* at Anduril
- Prior to his Tech Lead role, Abhay worked directly under **Brian Schimpf**, *CEO and Co-Founder of Anduril*, and *ex-Director of Engineering at Palantir*, on Perception problems ranging from Edge Inference, Quantized Learning and Inference, to Object Detection and Mapping
- Abhay graduated from the University of Wisconsin-Madison with *Distinction and Departmental Honors with a Bachelor of Science in Computer Sciences and Mathematics*
- At the University of Wisconsin-Madison as an *Research Assistant*, Abhay worked on Computer Science research, focusing on Machine Learning, Computer Vision, Robotics, Human-Computer Interaction, Internet of Things, and Big Data Systems
- For his Machine Learning and Computer Vision Research, Abhay was advised by **Dr. Vikas Singh**, *Professor of Computer Science and Bioinformatics* at the University of Wisconsin-Madison
- For his Big Data Systems Research, Abhay was advised by **Dr. Shivaram Venkataram**, *Assistant Professor of Computer Science* at the University of Wisconsin-Madison
- For his Human-Computer Interaction and Robotics Research, Abhay was advised by **Dr. Bilge Mutlu**, *Professor of Computer Science* at the University of Wisconsin-Madison
- Abhay has also worked at Facebook as a *Software Engineer Intern* on the News Feed Integrity Team, where he worked on machine learning, modeling, and product to improve the quality of the Facebook News Feed
- At Stanford University, Abhay was a *Research Intern* working on Robotics, Human-Computer Interaction, and Software Platform research advised by **Dr. Wendy Ju**, and **Dr. Michael Bernstein**
- In High School, Abhay was the *Valedictorian* for his breadth of excellence ranging from music and competitive quizzing to academics and entrepreneurship

EXPERIENCE

Anduril Industries
Software Engineer

Irvine, CA
May 2019 —

- Command-And-Control Product Architecture
- Simulation Infrastructure Architecture
- Mission Autonomy Architecture
- C++ Infrastructure Architecture
- Systems Software - Hardware Images
- Perception
 - * Mapping
 - * Object Detection
 - * Quantized Learning and Inference

University of Wisconsin-Madison
Research Assistant

Irvine, CA
September 2016 — May 2019

- Machine Learning and Computer Vision Research under Dr. Vikas Singh focusing on Novel Activation Functions, Semantic Segmentation, and Computer Vision for Drones
- Robotics and HCI Research under Dr. Bilge Mutlu focusing on Collaborative Industrial Robots
- IoT Research at the IoT Lab focusing on Computer Vision and Smart Homes

Facebook, Inc.

Software Engineer Intern

Menlo Park, CA

May 2018 — August 2018

- News Feed Integrity Team
- Common Ground - built data models and analytics dashboards for i8n launch
- Polarization - built new ranking algorithm based on an unsupervised model, ran experiment on 1% of Facebook's users
- Article Context - built article-to-context mapping system with 99% precision and 99% recall
- Received full-time return offer

Stanford University

Research Intern

Stanford, CA

June 2017 — September 2017

- Multi-Robot Interaction project under Dr. Wendy Ju
- Daemo, a crowdsourcing platform, under Dr. Michael Bernstein

Startup at Top Business School

Product Manager Intern

May 2016 — August 2016

EDUCATION

Stanford University

Computer Science (Non-Degree)

Stanford, CA

Summer Session (GPA 4.0)

University of Southern California

B.S. Computer Science

Los Angeles, CA

Admitted but did not enroll

University of Wisconsin-Madison

B.S. Mathematics, Computer Sciences (Honors)

Madison, WI

Graduated with Distinction

PUBLICATIONS

Generating Accurate Pseudo-Labels in Semi-Supervised Learning and Avoiding Overconfident Predictions via Hermite Polynomial Activations, CVPR 2020

Generating Accurate Pseudo-labels via Hermite Polynomials for SSL Confidently, Best Student Paper at MMLS 2019

Nondecomposable Data Dependent Regularizers offer Significant Performance Gains, DeepMath 2019

Optimizing Nondecomposable Data Dependent Regularizers via Lagrangian Reparameterization offers Significant Performance and Efficiency Gains, AAAI 2019, Ranking method on the Microsoft COCO Leaderboard

The Case for Unifying Data-loading in Machine Learning Clusters, HotCloud 2019, In Collaboration with Microsoft Research

Learning View Invariant Semantic Segmentation for UAV Video Sequences, SDM 2018, In Collaboration with American Family Insurance

TEST SCORES

GRE Composite 99th Percentile

GRE Analytical Writing 99th Percentile

GRE Verbal Reasoning 98th Percentile

SAT Math 97th Percentile

HIGHLIGHTED COURSEWORK

Stanford CS 161 *Design and Analysis of Algorithms*

UW-Madison CS 838 *Graduate Learning Methods in Computer Vision*

UW-Madison CS 766 Graduate Computer Vision
 UW-Madison CS 760 Graduate Machine Learning
 UW-Madison CS 744 Big Data Systems
 UW-Madison CS 564 Database Management Systems
 UW-Madison CS 540 Artificial Intelligence
 UW-Madison CS 537 Operating Systems
 UW-Madison Math 531 Advanced Probability Theory
 UW-Madison Math 525 Linear Programming
 UW-Madison Math 521 Analysis I
 UW-Madison Math 522 Analysis II

AWARDS

Edison Award	USA
<i>Awarded to Anduril for the Ghost Product which Abhay contributed to</i>	2021
Cornell, Maryland, and Max Planck Pre-Doctoral Research Fellowship	Germany
<i>Internationally recognized award, fully-funded seminar at the Max-Planck Institute</i>	2018
Hilldale Undergraduate Research Fellowship	Madison, WI
<i>Research award and funding</i>	2018
Phi Kappa Phi Nominee	Madison, WI
<i>Top 7.5% of all juniors</i>	2018
Course Citation	Madison, WI
<i>CS 564: Database Management Systems</i>	2018
The Hub CS Club Coding Competition	Madison, WI
<i>1st place</i>	March, 2017
Award Winning Exhibit	Madison, WI
<i>Wisconsin Engineering EXPO</i>	March, 2017
Dean's Award of Excellence	Madison, WI
<i>Awarded to Madison Enactus of which Abhay was the VP of Technology</i>	2016
Best Social Entrepreneurship Project, Transcend	Madison, WI
<i>Awarded to Madison Enactus of which Abhay was the VP of Technology</i>	2016
John W. Jung Memorial Scholarship	Madison, WI
<i>Awarded by UW-Madison for leadership, excellence, and service.</i>	2016
Dean's List	Madison, WI
<i>University of Wisconsin-Madison</i>	2016
High School Valedictorian	
<i>To the best overall student</i>	December, 2014
National 3rd Place in Top Tech Quiz	
<i>Prestigious national award out of 15,000 participants across the country</i>	December, 2014
Acknowledgement by Head of State	
<i>For Founding a Successful Not-For-Profit</i>	December, 2014
State Recommendation	
<i>For Founding a Successful Not-For-Profit</i>	December, 2014

LEADERSHIP

Judge Contrary Talent Hacks	February, 2021
Judge DubHacks	October, 2020
Judge HackThis by HackIllinois	August, 2020
Judge GarudaHacks	August, 2020
President, Co-Founder AI at UW, ai.cs.wisc.edu	2017
VP of Technology Madison Enactus	2016
Executive The Hub CS Club	2016
Chief Technology Officer Insight Wisconsin	2016
Executive Transcend	2015
Co-Founder Model United Nations	2014
Co-Founder Soccer Cup	2014

Co-Founder <i>Student Parliament</i>	2013
Quizmaster <i>Top Engineering University</i>	2013

ORGANIZATIONS

Contrary Talent <i>Member (~100 selected out of 2200+)</i>	contrarycap.com/talent
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REFERENCES

Brian Schimpf, CEO and Co-Founder at Anduril Industries, ex-Director of Engineering at Palantir

Jared Newman, Head of Platform at Anduril Industries

Nabil Enayet, Platform Group Lead at Anduril Industries

Dr. Vikas Singh, Professor of Computer Sciences and Bioinformatics at the University of Wisconsin-Madison

Dr. Shivaram Venkataraman, Assistant Professor of Computer Sciences at the University of Wisconsin-Madison

Dr. Theodoros Rekatsinas, Assistant Professor of Computer Sciences at the University of Wisconsin-Madison

Dr. Bilge Mutlu, Professor of Computer Sciences at the University of Wisconsin-Madison